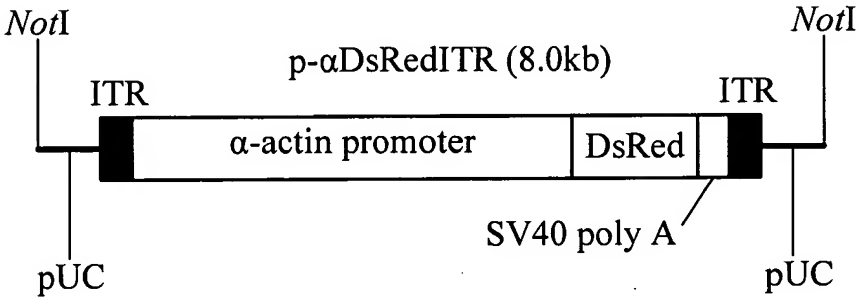
AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

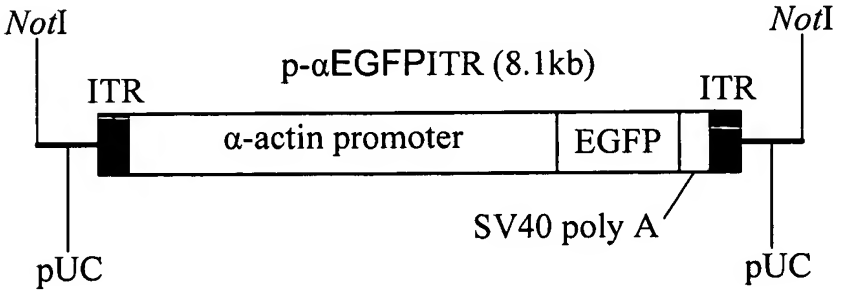
LISTING OF CLAIMS

1. (WITHDRAWN) A gene fragment comprising (1) α-actin gene promoter of golden zebrafish; (2) fluorescence gene; (3) inverted terminal repeats (ITR) of adeno-associated virus; and (4) a basic part from pUC.

2. (WITHDRAWN) The fragment of Claim 1 which is



or



3. (CURRENTLY AMENDED) A method of producing golden zebrafish with systemic fluorescence comprising:

(a) constructing a plasmid including a first ITR, a CMV ~~promotor~~promoter, a gene encoding a fluorescent gene product, S40 poly A and a second ITR ~~from upstream to downstream~~;

(b) replacing the CMV ~~promotor~~ promoter with an α-actin gene promoter ~~(systemic skeletal muscle actin gene expression)~~ of golden zebrafish to produce a new plasmid construct in which the α-actin gene promoter is operably linked to the gene encoding a fluorescent gene product;

(c) linearizing the new plasmid construct;

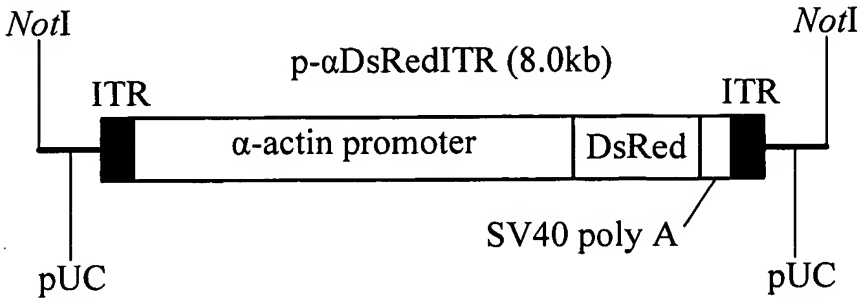
(d) microinjecting the linearized new plasmid construct into fertilized eggs of golden zebrafish;

(e) incubating the microinjected eggs for at least 24 hours;

(~~f~~e) selecting ~~the~~ incubated eggs exhibiting~~with~~ fluorescence; and

(f) cultivating the selected eggs to maturity to produce golden zebrafish having skeletal muscle that exhibits~~with systemic~~ fluorescence.

4. (ORIGINAL) The method of Claim 3 wherein the linearized plasmid is



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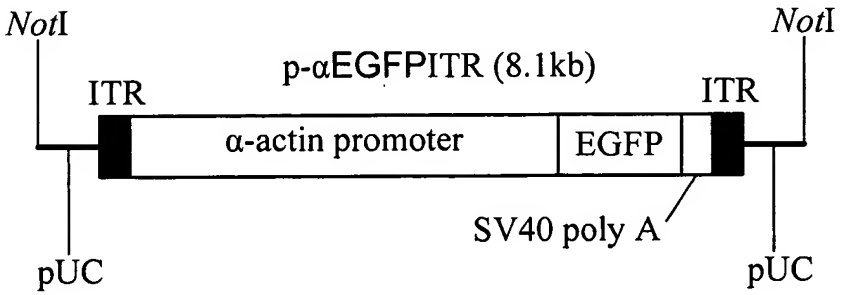

5. (CURRENTLY AMENDED) The method of Claim 3 wherein the gene encoding the fluorescent gene product is a red fluorescent gene from pDsRed2-1.

6. (CURRENTLY AMENDED) The method of Claim 3 wherein the gene encoding the fluorescent gene product is a green fluorescent gene from pEGFP-1.

7. (CURRENTLY AMENDED) A golden zebrafish ~~with~~ having skeletal muscle that exhibits~~systemic~~ fluorescence produced according to ~~from~~ the method of Claim 3.

8. (CURRENTLY AMENDED) The golden zebrafish of Claim 7 in which

skeletal muscle exhibits ~~has systemic~~ red fluorescence.

9. (CURRENTLY AMENDED) The golden zebrafish of Claim 7 in which skeletal muscle exhibits~~has systemic~~ green fluorescence.

10. (NEW) The method of Claim 3 wherein the linearized plasmid is selected from a group consisting of

a first linearized plasmid consisting of, in order, a first pUC backbone segment, a first ITR, an α-actin gene promoter for golden zebrafish, gene encoding a red fluorescent gene product, SV40 Poly A, a second ITR, and a second pUC backbone wherein the first ITR is located at a 5' end of α-actin gene promoter and the second ITR is located at a 3' end of the SV40 poly A, wherein the gene encoding a red fluorescent gene product and the gene promoter are operably linked, and further wherein the first and second pUC backbone segments may be cut with *Not*I;

and

a second linearized plasmid consisting of, in order, a first pUC backbone segment, a first ITR, an α-actin gene promoter for golden zebrafish, gene encoding a green fluorescent gene product, SV40 Poly A, a second ITR, and a second pUC backbone segment, wherein the first ITR is located at a 5' end of α-actin gene promoter and the second ITR is located at a 3' end of the SV40 poly A, wherein the gene encoding a green fluorescent gene product and the gene promoter are operably linked, and further wherein the first and second pUC backbone segments may be cut with *Not*I.

11. (NEW) The method of Claim 10 wherein:

the gene encoding a red fluorescent gene product is DsRed; and

gene encoding a green fluorescent gene product is EGFP.

12. (NEW) The method of Claim 3 wherein the linearized plasmid is selected from a group consisting of

a first linearized plasmid consisting of, in order, a first pUC backbone segment, a first ITR, an α-actin gene promoter for golden zebrafish, gene encoding a red fluorescent gene product, SV40 Poly A, a second ITR, and a second pUC backbone wherein the first ITR is located at a 5' end of α-actin gene promoter and the second ITR is located at a 3' end of the SV40 poly A, wherein the gene encoding a red fluorescent gene product and the gene promoter are operably linked, and further wherein the first and second pUC backbone segments may be cut with *Not*I.

13. (NEW) The method of Claim 12 wherein:

the gene encoding a red fluorescent gene product is DsRed.

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